EVALUATION OF A REMINISCENCE ACTIVITY FOR COMMUNITY-DWELLING OLDER ADULTS

by

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ABSTRACT

The present study examined the benefits of a brief reminiscence activity and the relationships between reminiscence, generativity, and personality in older adults. The activity was shown to be enjoyable, and participation resulted in an increase in episodic autobiographical memory. This increase was related to using reminiscence as a means of decreasing boredom and to the amount of reminiscence in general a participant tended to engage in. Furthermore, a significant positive relationship was found between generativity levels and using reminiscence to teach/inform others and to solve problems. In conclusion, this study highlights the efficacy of a brief reminiscence activity and shows a potential to positively impact the lives of older adults.

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PROBLEM STATEMENT

Accessing autobiographical memories is an important component in the maintenance of a sense of identity by older adults, as well as an important source of intergenerational interaction. While the value of reminiscence and life review are recognized as ways of maintaining these memories, current reminisce programs and activities tend to be long-term in nature – on the order of 8-11 one-hour weekly sessions (e.g. Haight & Haight, 2007). This presents a problem for community-dwelling older adults in particular, as many of these individuals do not have the time that would be necessary to participate in a reminiscence activity, nor do they typically have easy access to an individual that would lead/guide them in such an activity.

Older adults also experience declines in generativity as they age (Erikson, 1950; McAdams & de St. Aubin, 1993). Low levels of generativity are correlated with depression, neuroticism, low self-esteem, and dissatisfaction with life (Blanco & Diaz, 2007; Cox, Wilt, Olson, & McAdams, 2010). Finding a way of increasing or maintaining generativity as people age may help to protect against these issues.

The purpose of the proposed study is to examine the utility of a brief reminiscence activity for increasing a sense of generativity among healthy, community-dwelling older adults. The proposed study will also examine the relationship between increases in generativity associated with participating in the activity, the Big-Five personality scales (i.e., neuroticism, extroversion, openness to experience, conscientiousness, and agreeableness;), and the reasons individuals cite for engaging in reminiscence, known as reminiscence functions (Webster, 1997). The study will also determine if engaging in a brief reminiscence activity results in an increase in the number of life events recalled in a pictorial representation of the course of that person's life, known as a life-line (Assink & Schroots, 2010).

INTRODUCTION

As individuals age, they experience declines in cognitive functioning aside from losses associated with unhealthy aging (i.e. the development of a neurodegenerative disease or function lost due to stroke) (Salthouse, 1991). One of the main effects of normal aging is a decrease in episodic autobiographical memories of one's life, thought to be caused by an increased difficulty in retrieving such information (Jacques, Rubin, & Cabeza, 2012). Healthy older adults also tend to report having fewer memories (voluntary or involuntary) than younger adults, with their voluntary memories in particular being more generalized than those of younger adults (Schlagman, Kliegel, Schulz, & Kvavilashvili, 2009). Because specific, episodic autobiographical memories contribute substantially to maintaining a sense of personal identity, it is important to find ways to increase these types of memories in older adults.

One possible way of increasing the recall of episodic memories is through reminiscence, or the recall of memories from a person's personal history. In recent decades, reminiscence has gained popularity as a tool for improving the mental health of older adults. While some theories, such as the disengagement theory (Cumming & Henry, 1961), regard reminiscence as a way for one to withdraw from society, other theorists note that many older adults use reminiscence as a way to involve themselves in society and to teach from experience (Coleman, 2005).

Reminiscence is a relatively informal and spontaneous activity based on recall of events from one's past. When used therapeutically, it is typically patient/client led, with a facilitator providing prompts to keep the conversation flowing.

Benefits of engaging in reminiscence and life review include, but are not limited to, the acceptance of negative life events, finding closure in one's life, further developing a sense of

self, forming new relationships, and leaving behind lessons for future generations from wisdom gained through experience (Soltys & Kunz, 2007).

Webster (1993) identified seven primary reasons for why people engage in reminiscence, which he referred to as reminiscence function: Boredom Reduction, Death Preparation, Identity/Problem-Solving, Conversation, Intimacy Maintenance, Bitterness Revival, and Teaching/Informing (Webster, 1993). The Identity/Problem-Solving factor was later split into separate factors (Webster, 1997). These factors are meant to highlight the reasons for which an individual tends to engage in reminiscence, either on their own or with others. Those utilizing reminiscence as a means of Boredom Reduction tend to reminisce when they have nothing else to do and are trying to pass the time. When Death Preparation is the reason for reminiscence, it serves the purpose of making one feel as though they have lived a full life, have no reason to fear death, and can readily accept their own mortality. The Identity function of reminiscence is observed when reminiscence is used by an individual in an attempt to understand themselves, their past, and their current position in life. Those using reminiscence for its Problem-Solving function tend to use their past as a way of discovering how to best handle a current situation based on previous experiences. The Conversation function of reminiscence serves to create social interaction by using reminiscence as a conversation starter or a way of highlighting similarities and creating bonds between new acquaintances. Reminiscing for Intimacy Maintenance refers to keeping alive memories of loved ones who are no longer in one's life. In using reminiscence for its Bitterness Revival function, an individual rehashes old wrongs and remembers bitter or painful memories. With the last function identified, Teach/Inform, reminiscence is used as a tool to transmit cultural values, knowledge, or family history information.

Generally speaking, reminiscence helps individuals to discover and retain a sense of who they are, what they have done in life, and relationships they have formed throughout life. This is supported by examining the contents of the reminiscences of older adults. One feature of memory for personal history is that researchers consistently observe a reminiscence bump, wherein a disproportionately larger number of autobiographical memories from late adolescence through early adulthood are recalled (Cappeliez, 2008; Schroots, 2003; Schroots, van Dijkum, & Assink, 2004). One conventional technique for assessing the presence of a reminiscence bump is the Lifeline Interview Method (LIM; Schroots, 2003). In this method, a person draws a line from birth to their current age, with peaks and troughs in the line representing positive and negative events and episodes in their life. For each life event noted along the ling, participants record the nature of the life event and their age at which it occurred. Researchers consistently observe that in creating this lifeline, people not only remember more events from the time period of adolescence through early adulthood, but also devote more of their allotted space within their lifeline to that particular time period (Pierce & Schroots, 2011). Researchers believe that it is the development of an individual's identity that causes the bump in memories from this time period (Cappeliez, 2008). Assuming this is the case, engaging older adults in reminiscence should enable them to maintain their sense of self and find or keep a feeling of social belonging (Coleman, 2005) and should ultimately enhance the ability to access the memories they have by providing them with fresh associations from which they may cue or prime other, less-accessible memories.

Engaging Adults in Reminiscence

Two prominent and widely-used methods of engaging adults in reminiscence are Guided Autobiography (Birren & Cochran, 2001) and Structured Life Review (Haight & Haight, 2007).

In Guided Autobiography (Birren & Cochran, 2001) individuals are led by a trained instructor in organizing their life stories. Participants in this course are asked to focus on particular themes or questions designed to elicit memories of past events consistent with these themes. They then write about their life story and share these written reminiscences with others taking part in a Guided Autobiography class. The goal of the course is to put one's life into perspective, acquire new meaning and understanding, and increase appreciation for the life one has lived. A second course (Guided Autobiography II) allows individuals to continue writing their life story, going more in-depth and addressing larger-scale issues. A typical class takes five weeks to complete and consists of five, two hour meetings.

In Structured Life Review (Haight & Haight, 2007), an individual's life is reviewed to find meaning and gain understanding about the life lived. It is typically done with a reviewer, although family members and other loved ones may contribute as well. The reviewer should employ therapeutic listening, which consists of maintaining confidentiality and being responsive, caring, empathic, etc. Questions in the structured life review are presented in chronological order and cover all stages of life. In addition, questions are provided that solicit summarizing information about how an individual views their life overall. The Structured Life Review takes place over eight separate visits, with each visit focusing on a new topic. The first visit consists of introductions and agreement on details, such as whether the review will be recorded, what will be discussed, etc. Childhood, adolescence, young adulthood, and older adulthood are covered in visits two, three four, and five, respectively. A summary and evaluation of the life takes place during the sixth visit, and integration of the different segments of one's life takes place during the seventh visit. Visit eight concerns closure and discussing the outcomes of the Life Review. Both Structured Life Review and Guided Autobiography note increases in feeling of self-worth

and levels of generativity as benefits of participation. The next section of this Introduction will describe in greater detail the definition and development of the construct of generativity.

Generativity

Erikson (1950) identified the concept of generativity as an important stage of adult development. According to Erikson, generativity vs. stagnation is the developmental question an individual must resolve in midlife. Generativity is having concern for future generations and, from that concern, taking action that either maintains what is good about life or changes for the better those things which need improving (McAdams & Logan, 2004). There are several different forms of generativity, including having children, parenting and caring for one's children, teaching skills to others, and teaching cultural lessons to others (Kotre, 1984).

Furthermore, generativity is also good for the psychological well-being of a person. Ratings of high generativity are positively associated with mature coping strategies, life satisfaction, happiness, and self-esteem, and are negatively associated with depression and neuroticism (McAdams, de St. Aubin, & Logan, 1993; McAdams & Logan, 2004). In addition to being psychologically beneficial, generativity also has a sociological impact when associated with the teaching of cultural lessons to others (Imada, 2004).

While generativity levels appear to vary across social roles, making its stability throughout life more difficult to assess (MacDermid, Franz, & DeReus, need year), generativity seems to be at its highest level during middle adulthood, declining as a person ages (McAdams, de St. Aubin, & Logan, 2004). However, because the expression of generativity is often planned and achieved through social roles, there is debate over the extent to which this decline is indicative of a true decline in generative concern or if it is being moderated by changing social

roles as one ages. Regardless, it is crucial that older adults maintain generativity as it is an important aspect of successful aging (Schoklitsch & Baumann, 2011).

Personality also appears to be associated with individual differences in generativity. In terms of the Big Five traits, generative individuals tend to consistently score highly on scales of Extraversion and Openness to New Experiences (Bradley & Marcia, 1998; Cox, Wilt, Olson, & McAdams, 2010; Peterson & Duncan, 2007). These individuals are typically warm, social, assertive, imaginative, and broadminded (Bradley & Marcia, 1998). Other studies have also found that Agreeableness and Conscientiousness are positively correlated with generativity, with generative individuals being trusting, helpful, more altruistic, reliable, and organized (Bradley & Marcia, 1998; Cox, Wilt, Olson, & McAdams, 2010). Regarding Conscientiousness, however, Peterson and Duncan (2007) found that it was associated with generativity at age 52, but not at age 62. Generativity is negatively correlated with the factor of Neuroticism, with generative individuals consistently scoring low on measures of depressiveness and anxiety in general (Cox, Wilt, Olson, & McAdams, 2010).

Generative Function of Reminiscence

An individual may decide to engage in reminiscence for a variety of reasons. Younger adults tend to use reminiscence to serve themselves, as a means of boredom reduction and/or problem solving, while older adults use reminiscence more socially, as a means of death preparation and/or to teach/inform (Webster & Gould, 2007; Webster and McCall, 1999). One aspect of generativity is to teach others about cultural values (Imada, 2004). When reminiscence is utilized to teach/inform, it is serving a generative function of passing on lessons to the next generation. It follows, then, that individuals reminiscing to serve a transmissive function would have higher levels of generativity and that engaging individuals in reminiscence for transmissive

purposes, such as leaving behind a family history, would increase their levels of perceived generativity.

Present Study

The present study examined the efficacy of a brief reminiscence activity similar to Haight and Haight's (2007) longer-term Structured Life Review. Many older adults do not have the time or means required to participate in longer-term activities. The goal was to develop a brief activity that was enjoyable and satisfying to take part in, while providing a means of recording key stories about their lives that may prove interesting and of benefit to future generations. Regarding potential benefits of participation, the goal was to determine the activity's efficacy in increasing recall of episodic autobiographical events as well as generativity. A third goal of this study was to examine the relationships among autobiographical event recall, generativity scores, personality variables, and reminiscence functions.

Hypotheses

This study examined whether the implementation of a brief activity engaging community-dwelling older adults in reminiscence would be associated with increases in generativity scores and be an activity which participants enjoyed. A more specific prediction was that participants using reminiscence as a means of teaching/informing would experience the greatest increase in generativity. With regard to personality variables, it was predicted that higher scores on the Openness to Experience, Agreeableness, Extraversion, and Conscientiousness subscales of the personality questionnaire would be associated with higher scores on the measure of generativity, and that Neuroticism would be negatively correlated with higher levels of generativity. These correlations with generativity have been seen in previous research (Peterson, Smirles, & Wentworth, 1997; Bradley & Marcia, 1998; Peterson & Duncan, 2007; Cox, Wilt,

Olson, & McAdams, 2010), and it is hypothesized that this study would provide further support to these findings. Finally, it was predicted that a greater number of autobiographical life events would appear in the lifelines of participants after completing the reminiscence interview than in lifelines created before they complete the interview. In other words, autobiographical memory recall would be greater after completion of the activity, presumably because these memories had been recently primed during the course of the reminiscence activity.

METHODS

Participants

Participants were 16 healthy, community-dwelling adults age 55 or older. Convenience and snowball sampling methods were used in recruiting potential participants. Eleven participants were female, and five were male. All participants identified themselves as Caucasian. The mean age was 69.56 (*SD* = 6.58), with ages ranging from 58 to 80. Participants had an average of approximately 13 years of education (*M* = 13.13, *SD* = 2.36). Three participants were currently employed, while the remaining thirteen were retired. Participants reported getting enough sleep on average (*M* = 7.47 hours of sleep per night, *SD* = 1.37) and reported a mean of 2.94 health issues, such as heart disease or diabetes (*SD* = 1.8).

Materials

Demographics Questionnaire. Participants completed a demographics questionnaire, providing basic information such as gender, age, race, etc. (Appendix A).

Loyola Generativity Scale. The Loyola Generativity Scale (LGS; McAdams & de St. Aubin, 1992) was used to measure participants' pre- and post-activity generativity scores. This measure has been found to be both reliable (α = .83) and valid (McAdams & de St. Aubin, 1992). The LGS is a 20-item self-report questionnaire used to assess an individual's concern for future generations. A participant indicated how often each of the 20 statements applied to them on a four-point scale with response options ranging from "never" to "very often/nearly always." Using data from the current study, reliability was assessed for the LGS both pre- and post-activity, and was acceptable at both time points (α = .696 and α = .823, respectively).

International Personality Item Pool NEO-Short Form. The International Personality Item Pool NEO-Short Form (IPIP; Goldberg, 1999; Appendix B) is a 50-item inventory designed

to correlate with the Big-Five personality domains of Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness. The IPIP subscales referring to Neuroticism and Openness to Experience were renamed Emotional Stability (indicating low levels of Neuroticism) and Intellect/Imagination, respectively. This measure has been consistently found to be both reliable and valid (Goldberg et al., 2006). Participants indicated how well each of the 50 statements described themselves on a five-point scale with response options ranging from "very inaccurate" to "very accurate." Overall reliability of this measure was good using data from the current study ($\alpha = .869$), as was reliability for each of the subscales as shown in Table 1.

Table 1

Cronbach's Alpha Table for Subscales of the IPIP-NEO-PI-R

Subscale	A
Extraversion	.898
Agreeableness	.613
Conscientiousness	.626
Emotional Stability	.858
Intellect/Imagination	.738

Reminiscence Functions Scale. Webster's (1997) Reminiscence Functions Scale (RFS) was used to determine why a participant engaged in reminiscence. This measure has been found to be both reliable ($\alpha = .84$) and valid (Webster 1993; Webster 1997). Participants indicated how often they reminiscence for each of the 43 reasons listed in the RFS on a six-point scale with response options ranging from "never" to "very frequently." Reasons for and functions of reminiscing assessed by this scale include Boredom Reduction, Death Preparation, Identity, Problem-Solving, Conversation, Intimacy Maintenance, Bitterness Revival, and Teaching/Informing. Overall reliability for this scale in this study was good ($\alpha = .915$), as was the reliability for each of the eight subscales, which are included in Table 2.

Table 2

Cronbach's Alpha Table for Subscales of the RFS

Subscales	α
Boredom Reduction	.861
Death Preparation	.689
Identity	.878
Problem-Solving	.775
Conversation	.790
Intimacy Maintenance	.909
Bitterness Revival	.801
Teach/Inform	.789

Lifeline Interview Method. The Lifeline Interview Method (LIM; Assink & Schroots, 2010; Appendix F) was used to examine participants' autobiographical memory for life events. The LIM presents participants with a piece of paper, with the left edge representing their birth and the right edge representing their current age. A horizontal line in the middle of this paper acts as a neutral point, with space above the line representing positive events and space below the line representing negative events. Participants filled in their lifeline by placing a dot representing an important memory, and then drawing a line connecting those dots representing the peaks and valleys of their life. Each peak and valley was then labeled with an age and a specific life event (Schroots, 2003; Schroots, Dijkum, & Assink, 2004). The LIM allows for the examination of the number of events a person can recall as well as the distribution of events, the ages at which each event occurred, and the affect associated with each event. A blank LIM lifeline form is included in Appendix C- Part a. A sample completed LIM lifeline is included in Appendix C- Part b.

Personal History Interview. The Personal History Interview (PHI) (© 2012 Thomas W. Pierce) was used as a second mechanism of reminiscence for participants (Appendix D). It consists of 41 open-ended questions eliciting memories from a variety of phases of a participant's life. This interview was administered verbally and was recorded for the researcher and research assistants to utilize at a later point for the production of an audio CD. The PHI required between 16 and 58 minutes (M = 33.896, SD = 10.386). These times do not include time spent with a participant before or after the PHI.

Assessment Interview. A semi-structured interview (Appendix E) was used to evaluate the activity's effectiveness in regard to participants' enjoyment of the activity as well as their satisfaction with the product created for them. This assessment interview (AI) consisted of both

open-ended questions and questions answered using a Likert scale. The portion consisting of open-ended questions was either recorded for later transcription and coding or transcribed as the AI took place. The Likert-scaled assessment items were given to the participant to complete on their own.

Audacity. The digital audio editing program, Audacity, was used to record interviews and to produce a CD for participants to keep. This program is available for free download at http://audacity.sourceforge.net.

Procedure

Data collection and the activity itself took place over the course of approximately two weeks. Day One began once informed consent had been obtained, and the Loyola Generativity Scale, International Personality Item Pool NEO-Short Form, and Reminiscence Function Scale were administered, and a lifeline using the Lifeline Interview Method was obtained. Within two days of completing these measures, either the researcher or a research assistant (Kyle Pollard) returned and administered the Personal History Interview. Over the course of the next week, the researcher or assistant created an audio CD of the interview for the participant to keep. A one-page biography was also offered to participants, however, none of the 16 participants elected to receive the biography. Approximately one week after the Personal History Interview, the researcher returned to the participant with the CD for review. During the review, the researcher presented the participant with the CD, explained that there was a list of tracks on the inside cover detailing each topic of the interview, and then previewed the first two tracks with the participant. In order to control for differences in playing or sharing the CD, the CD was not left with the participant at this time. After a brief waiting period (determined by the participant's schedule), the researcher returned to administer the Assessment Interview and re-administer the Loyola

Generativity Scale and Lifeline Interview Method. At this point, the CD was given to the participant and they were debriefed.

RESULTS

Activity Assessment

The hypothesis that the activity would be enjoyable was supported. For the most part, participants not only enjoyed the activity, but also felt that others would enjoy it, found it to be worthwhile, and believed others would benefit from the activity. Two participants did not want a CD of the Personal History Interview. The fourteen participants that did receive a CD were pleased with it overall and most reported that they planned to share the CD with family and/or friends. No participants requested the one-page biography offered. Frequency totals for the written portion of the assessment interview of the activity are shown in Table 3.

Table 3

Frequencies for Activity Assessment Interview Results

	Selected Response					
Assessment Questions – Written Portion	1	2	3	4	5	Total
The interview process was enjoyable.	0	0	1	8	7	16
I am pleased with the audio CD that I received.	0	0	1	9	4	14
Other people would enjoy participating in this activity.	0	0	4	8	4	16
I will share my audio CD with family and/or friends.	0	2	2	7	3	14
Participation in the reminiscence activity itself was a worthwhile experience.	0	0	2	10	4	16
Other people would benefit from participating in this activity.	0	0	3	12	1	16

Note: Scores of 1, 2, 3, 4, and 5 correspond to answers of "Strongly Disagree," "Disagree," "Neither Agree nor Disagree," "Agree," and "Strongly Agree," respectively.

Furthermore, an independent samples t-test indicated that females (M = 4.64, SD = .50) liked the activity more than males (M = 3.8, SD = .45), t (14) = -3.172, p = .007, and females (M = 4.09, SD = .30) also indicated that they believed others would benefit from the activity more so than did males (M = 3.4, SD = .55), t (14) = -3.300, p = .005. No other demographic variable, such as age or employment status, was a significant factor in participants' assessments of the activity.

Autobiographical Memory

The prediction that the number of memories recalled by participants after completing the activity (as measured by the LIM) would increase significantly was supported by the results of a One-Way Repeated Measures Analysis of Variance (ANOVA), F (1,15) = 3.738, p = .036, η_p^2 = .200. Participants remembered significantly more episodic autobiographical events after the activity (M = 18.25, SD = 13.2) than before the activity (M = 13.75, SD = 6.59). Further examination of memories recalled pre- and post-activity using a one-tailed paired samples t-test revealed that only the number of positive memories recalled increased significantly (pre-PHI, M = 9.625, SD = 4.455; post-PHI, M = 12.938, SD = 8.737), t (15) = -2.096, p = .026. A slight increase in negative memories recalled was not significant (pre-PHI, M = 4.125, SD = 2.705; post-PHI, M = 5.316, SD = 4.977). A graph of pre- and post-PHI memories recalled is shown in Figure 1.

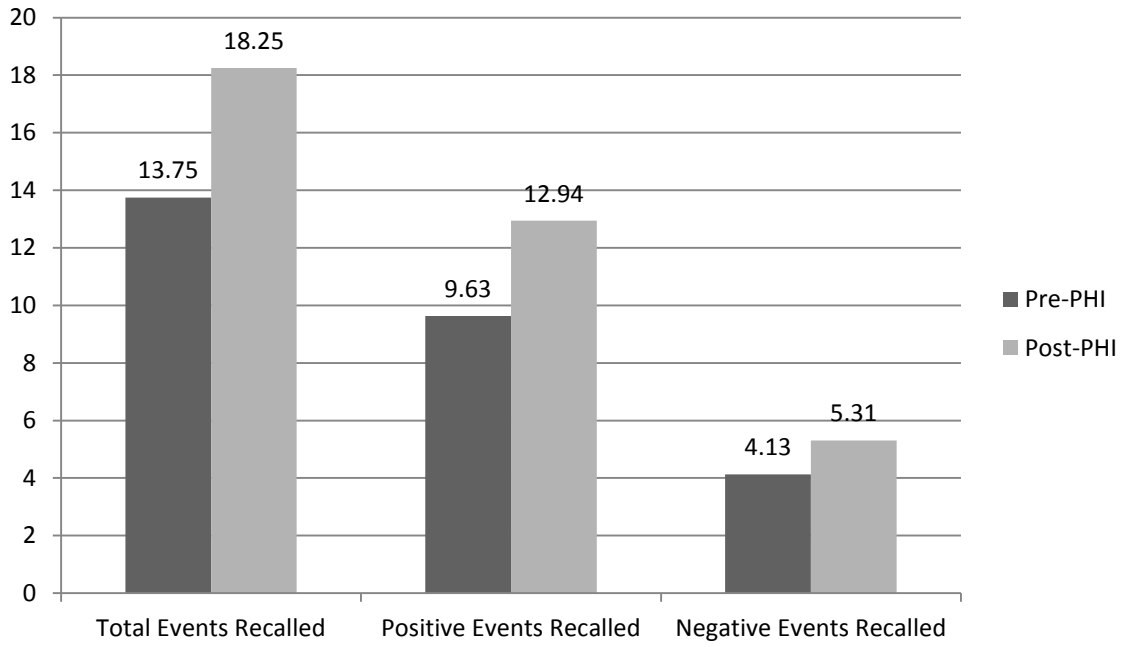

Figure 1. Episodic autobiographical memories reported on the LIM pre- and post-PHI. This figure illustrates the mean number of memories recalled on both administrations of the LIM. Increases in total events recalled and positive events recalled were significant at the 0.05 level (one-tailed).

Participants' total scores on the RFS, which are representative of more instances of reminiscing in everyday life, were positively correlated with an increase in memories recalled post-PHI, $r = .521$, $p = .038$. More specifically, the RFS subscale of Boredom Reduction was positively correlated with a higher total number of memories recalled post-PHI, $r = .573$, $p = .020$, as well as a higher number of positive memories recalled post-PHI, $r = .567$, $p = .022$.

Generativity Scores

The hypothesis that the reminiscence activity would result in the increase of participants' generativity scores was not supported by the results of a One-Way Repeated Measures ANOVA. Pre-PHI scores on the LGS ($M = 37$, $SD = 7.42$) were not significantly different from LGS scores post-PHI ($M = 36.69$, $SD = 8.67$). The estimated effect size of the activity on generativity was very small, $\eta_p^2 = .003$.

While there was no significant change in generativity scores, there are several correlations between generativity and other variables that, while not significant, are worth noting. Whether or not a person's generativity increased (a dichotomous variable created based upon an increase in LGS score post-PHI) was correlated with their age, $r = .256$, $r^2 = .066$, $p = .339$, years of education, $r = -.268$, $r^2 = .072$, $p = .316$, hours of sleep per day, $r = .456$, $r^2 = .208$, $p = .076$, and number of health problems/issues, $r = .323$, $r^2 = .104$, $p = .222$.

Correlations between Generativity and Personality

The hypothesis that generativity would follow previous research findings in its correlations with the Big Five personality traits was not supported. No significant correlations were found between a mean generativity score (averaged across the two times of testing) ($M = 36.844$, $SD = 7.57$) and any of the personality traits assessed (Extraversion, $M = 34.403$, $SD = 9.397$; Agreeableness, $M = 44.743$, $SD = 4.196$; Conscientiousness, $M = 37.949$, $SD = 5.785$;

Emotional Stability, *M* = 32.444, *SD* = 8.724; Intellect/Imagination, *M* = 31.674, *SD* = 6.874), although it should be noted that the relationship between generativity and Agreeableness closely approached significance. A correlation matrix for the IPIP-NEO-PI-R and average generativity along with a correlation matrix for the IPIP-NEO-PI-R and amount of change in generativity observed post-PHI are shown in Table 4.

Table 4

Correlations between the IPIP-NEO-PI-R and Generativity

Average Generativity Score and Personality Domain Correlations							
		GEN	EV	A	C	ES	II
GEN	*r*	-	.215	.490	.067	.115	.210
	p		.425	.054	.807	.672	.435
EV	*r*	-	-	.222	-.001	.294	.482
	p			.409	.998	.269	.059
A	*r*	-	-	-	.045	-.249	.312
	p				.868	.353	.240
C	*r*	-	-	-	-	.295	.434
	p					.268	.093
ES	*r*	-	-	-	-	-	.115
	p						.672
II	*r*	-	-	-	-	-	-
	p						

Generativity Change Score[1] and Personality Domain Correlations						
		EV	A	C	ES	II
GEN C	*r*	.004	-.305	.287	.248	.131
	r^2	<.001	.093	.082	.062	.017
	p	.989	.251	.282	.355	.629

Note: "GEN" refers to mean generativity scores of the pre- and post-PHI LGS. "GEN C" refers to the change in generativity observed in participants post-PHI. Remaining abbreviations refer to the IPIP-NEO-PI-R subscales of Extraversion ("EV"), Agreeableness ("A"), Conscientiousness ("C"), Emotional Stability ("ES"), and Intellect/Imagination ("II").

[1]The Generativity Change Score refers to the amount of change in LGS scores observed post-PHI and was calculated by subtracting participants' pre-PHI LGS scores from their post-PHI LGS scores.

Correlations between Generativity and Reminiscence Function

While the hypothesis that using participants tending to use reminiscence as a means of Teaching/Informing would experience the greatest increase in generativity was not supported, strong significant positive correlations were observed between scores for this particular function (M = 3.913, SD = 0.929) and an average generativity score (M = 36.844, SD = 7.57), r = .718, p = .002. Also significantly positively correlated with an average generativity score was the Problem Solving subscale (M = 3.958, SD = 0.868), r = .574, p = .020. A correlation matrix for these and the remaining RFS subscale averages (Boredom Reduction, M = 2.573, SD = 1.109; Death Preparation, M = 2.719, SD = 0.910; Identity M = 3.563, SD = 1.174; Conversation, M = 3.613, SD = 0.942; Intimacy Maintenance, M = 4.375, SD = 1.187; Bitterness Revival, M = 2.125, SD = 0.929), RFS total score (M = 142.625, SD = 27.269), is shown in Table 5-A, and Table 5-B shows the correlations of the RFS and its subscales with the amount of change in generativity observed post-PHI.

Table 5

Correlations between the RFS and Generativity

Average Generativity Score and RFS Correlations											
		Gen	BRed	DP	ID	PS	C	IM	BRev	TI	Tot
Gen	*r*	-	.103	.148	.435	.574*	.307	.301	-.157	.718**	.478
	p		.703	.584	.093	.020	.248	.257	.561	.002	.061
BRed	*r*	-	-	.512*	.338	.053	.295	.328	.480	-.030	.629**
	p			.043	.201	.844	.268	.215	.060	.912	.009
DP	*r*	-	-	-	.543	.216	.030	.485	.425	.176	.675**
	p				.078	.421	.911	.057	.101	.513	.004
ID	*r*	-	-	-	-	.595*	.695**	.337	.449	.274	.847**
	p					.015	.003	.202	.081	.304	.000
PS	*r*	-	-	-	-	-	.381	.057	.346	.722**	.659**
	p						.145	.835	.190	.002	.006
C	*r*	-	-	-	-	-	-	.151	.294	.053	.588*
	p							.578	.270	.845	.017
IM	*r*	-	-	-	-	-	-	-	.221	.035	.519*
	p								.411	.898	.040
BRev	*r*	-	-	-	-	-	-	-	-	-.116	.624**
	p									.668	.010
TI	*r*	-	-	-	-	-	-	-	-	-	.403
	p										.122
Tot	*r*	-	-	-	-	-	-	-	-	-	-
	p										

Generativity Change Score[1] and RFS Correlations										
		BRed	DP	ID	PS	C	IM	BRev	TI	Tot
Gen C	*r*	.258	.366	.113	.134	-.095	-.255	-.261	.394	.153
	r^2	.067	.134	.013	.018	.009	.065	.068	.155	.023
	p	.334	.164	.676	.620	.725	.341	.328	.131	.572

Note: "Gen" refers to mean Generativity scores from the pre- and post-PHI LGS. "Gen C" refers to the change observed in generativity post-PHI. Remaining abbreviations refer to the mean scores on RFS subscales of Boredom Reduction ("BRed"), Death Preparation ("DP"), Identity ("ID"), Problem Solving ("PS"), Conversation ("C"), Intimacy Maintenance ("IM"), Bitterness Revival ("BRev"), and Teach/Inform ("TI"), and "Tot" refers to total RFS scores.

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

[1]The Generativity Change Score refers to the amount of change in LGS scores observed post-PHI and was calculated by subtracting participants' pre-PHI LGS scores from their post-PHI LGS scores.

Qualitative Data from the Oral Assessment Interview

Responses from the oral portion of the AI were extremely homogenous, with participants giving nearly identical answers to each of the questions. Overall, participants reported that they enjoyed the PHI, in particular having someone with whom to sit down and talk and getting the chance to reminiscence about issues they no longer thought of regularly, if at all. When asked what they enjoyed least about the interview, participants either had nothing to report, or reported that they disliked not being able to know the questions prior to being asked them in the interview.

All 16 participants reported that the length of the interview was just about right, being neither too long nor too short. Of the 14 participants that received an audio CD of the interview, all reported that they liked having the CD, and those who indicated anything they especially liked about the CD reported that they were looking forward to either sharing it with loved ones or being able to leave it behind for their loved ones after they were gone.

When asked for recommendations on improving the interview, the only suggestions given were regarding making the list of questions available before the interview to allow for time to think about responses. No participants had any recommendations for improving the product they received (i.e., the CD) or suggestions for other products to offer.

DISCUSSION

Conclusions and Implications

The present study's primary goal was to evaluate the benefits of a brief reminiscence activity. Overall, the combination of the LIM and PHI was found to be a useful and beneficial activity in which individuals enjoy participating. Also important to most participants was the availability of their recorded life story to pass along to loved ones. The transmissive purpose of the audio CD did not, however, result in the expected increase in generativity. The issue in this non-significant result was not a lack of statistical power, due to the observation that almost no change in generativity scores was observed across the two times of testing. One possibility is that the activity was either not intensive enough or would need to be extended to multiple sessions to have an effect on generativity.

Additionally, while not significant, it is worth noting the moderate effect sizes observed for the personality domains of Agreeableness, Conscientiousness, and Emotional Stability and the reminiscence functions of Boredom Reduction, Conversation, Bitterness Revival, Death Preparation, and Teaching/Informing with regard to predicting changes in generativity. A study with greater statistical power would very likely find that changes in generativity brought about through completion of this or another reminiscence activity would be partially moderated by these variables in particular.

A notable benefit of the activity is its ability to increase recall of episodic autobiographical events, which are valuable in maintaining a sense of self, contributing to positive aging. Participants' total RFS scores were significantly positively correlated with increases in recalled events, indicating that more frequent engagement in reminiscence in a person's day-to-day life was associated with greater improvements in the number of life events

recalled after participating in the activity. Higher scores for the Boredom Reduction subscale were also significantly positively correlated with increases in recalled events. This likely occurred because the activity provided prompts for future reminiscence after the completion of the activity. Perhaps those most likely to use reminiscence to reduce boredom found themselves with more opportunity to reflect on the memories primed or brought up explicitly by the activity, which may have resulted in the observed relationship.

This study also indicated that there is a strong positive correlation between the use of reminiscence as a means of Teaching/Informing and/or Problem Solving and generativity scores. The relationship between Teaching/Informing and generativity was expected, given the focus of generativity on future generations. The relationship between Problem Solving and generativity, however, was not expected. The observed positive correlation between Problem Solving and Teaching/Informing was very strong, and this may explain the observed relationship between Problem Solving and generativity. It is also possible that the Problem Solving function of reminiscence may, with generative individuals, be applied not only to the self, but also to others, resulting in Problem Solving serving a more generative function than it otherwise would.

Limitations and Directions for Future Research

A small sample size and, consequently, a low level of statistical power were the main limitations of this study. Given the large number of variable relationships and tests approaching significance, it is likely that a future study with more participants will find significant results. This is especially the case regarding the non-significant correlations between generativity and personality, with the predicted correlations having been consistently found by other researchers with larger sample sizes.

Furthermore, while the present study found the combination of the LIM and PHI to be efficacious in increasing episodic autobiographical memory recall, the individual contribution of each could not be determined. It would be interesting to determine the effect that each has on improving event recall. In addition, practice effects on the LIM should also be examined using a control group in order to determine the extent to which completing the LIM multiple times increases memory recall at a later date. Also interesting is the maintenance of the new memories appearing on participants' post-PHI lifelines not present on the pre-PHI lifelines. Future studies should investigate the duration of these memories in order to see how brief or lasting they are after being recalled.

Another possible direction for future studies is to examine the benefits of the PHI when participants are given a chance to review the questions ahead of the time of the interview. This would likely result in more extended discussion and could potentially result in an even greater increase in memories recalled post interview.

Additionally, the homogeneity of AI responses, especially on the oral portion, is cause for concern. In the future, it would be preferable for someone other than the primary researcher to administer the AI in order to decrease the possibility of eliciting socially desirable responses. Finally, while there was not a significant change in generativity levels pre- and post- activity, future studies might examine the time commitment required by a participant in order to experience changes in generativity levels.

In summary, while the combination of the LIM and PHI as a brief reminiscence activity is beneficial with regard to increasing autobiographical memory recall, more research must be done in order to identify other possible benefits. The potential of this activity to provide a time-

limited activity that meets the needs for one or more reminiscence functions, especially that of transmitting memories and advice to future generations, should be explored further.

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APPENDIX A

DEMOGRAPHICS QUESTIONNAIRE

1. I am a:
   Male _____
   Female _____

2. What is your date of birth _____

3. What is your race (Check all that apply)?

   Caucasian _____
   African American _____
   Hispanic _____
   Asian- American _____
   Native American _____
   Other (please state) _____

4. How many years of education do you have? (for example, graduation from high school is 12 years of education)

5. How many hours of sleep do you get daily? _____

6. How many hours of sleep did you get last night? **_____**

7. What health problems or issues do you have?

APPENDIX B

INTERNATIONAL PERSONALITY POOL NEO-PI-R

	Very Inaccurate	Moderately Inaccurate	Neither Accurate Nor Inaccurate	Moderately Accurate	Very Accurate
1. Am the life of the party.	O	O	O	O	O
2. Feel little concern for others.	O	O	O	O	O
3. Am always prepared.	O	O	O	O	O
4. Get stressed out easily.	O	O	O	O	O
5. Have a rich vocabulary.	O	O	O	O	O
6. Don't talk a lot.	O	O	O	O	O
7. Am interested in people.	O	O	O	O	O
8. Leave my belongings around.	O	O	O	O	O
9. Am relaxed most of the time.	O	O	O	O	O
10. Have difficulty understanding abstract ideas.	O	O	O	O	O
11. Feel comfortable around people.	O	O	O	O	O
12. Insult people.	O	O	O	O	O
13. Pay attention to details.	O	O	O	O	O
14. Worry about things.	O	O	O	O	O
15. Have a vivid imagination.	O	O	O	O	O
16. Keep in the background.	O	O	O	O	O
17. Sympathize with others' feelings.	O	O	O	O	O
18. Make a mess of things.	O	O	O	O	O
19. Seldom feel blue.	O	O	O	O	O
20. Am not interested in abstract ideas.	O	O	O	O	O
21. Start conversations.	O	O	O	O	O
22. Am not interested in other people's problems.	O	O	O	O	O
23. Get chores done right away.	O	O	O	O	O
24. Am easily disturbed.	O	O	O	O	O
25. Have excellent ideas.	O	O	O	O	O
26. Have little to say.	O	O	O	O	O

27. Have a soft heart.	**O**	**O**	**O**	**O**	**O**
28. Often forget to put things back in their proper place.	**O**	**O**	**O**	**O**	**O**
29. Get upset easily.	**O**	**O**	**O**	**O**	**O**
30. Do not have a good imagination.	**O**	**O**	**O**	**O**	**O**
31. Talk to a lot of different people at parties.	**O**	**O**	**O**	**O**	**O**
32. Am not really interested in others.	**O**	**O**	**O**	**O**	**O**
33. Like order.	**O**	**O**	**O**	**O**	**O**
34. Change my mood a lot.	**O**	**O**	**O**	**O**	**O**
35. Am quick to understand things.	**O**	**O**	**O**	**O**	**O**
36. Don't like to draw attention to myself.	**O**	**O**	**O**	**O**	**O**
37. Take time out for others.	**O**	**O**	**O**	**O**	**O**
38. Shirk my duties.	**O**	**O**	**O**	**O**	**O**
39. Have frequent mood swings.	**O**	**O**	**O**	**O**	**O**
40. Use difficult words.	**O**	**O**	**O**	**O**	**O**
41. Don't mind being the center of attention.	**O**	**O**	**O**	**O**	**O**
42. Feel others' emotions.	**O**	**O**	**O**	**O**	**O**
43. Follow a schedule.	**O**	**O**	**O**	**O**	**O**
44. Get irritated easily.	**O**	**O**	**O**	**O**	**O**
45. Spend time reflecting on things.	**O**	**O**	**O**	**O**	**O**
46. Am quiet around strangers.	**O**	**O**	**O**	**O**	**O**
47. Make people feel at ease.	**O**	**O**	**O**	**O**	**O**
48. Am exacting in my work.	**O**	**O**	**O**	**O**	**O**
49. Often feel blue.	**O**	**O**	**O**	**O**	**O**
50. Am full of ideas.	**O**	**O**	**O**	**O**	**O**

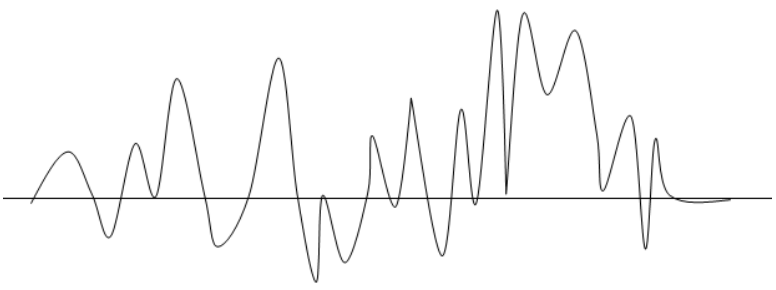
APPENDIX C

LIFELINE INTERVIEW METHOD

(A)

Birth Current Age

(B)



Birth Current Age

APPENDIX D

PERSONAL HISTORY INTERVIEW

The following questions represent starting points for collecting memories of a person's personal history. The interviewer should make it clear that the person being interviewed is free to elaborate as much as they would like in response to a particular question or to choose not to address a particular question. Interviewers are encouraged, with the participant's written permission, to make an audio recording of the session(s) (a) to allow for the transcription of responses or (b) to make the recollections available in audio form. Follow-up questions by the interviewer are encouraged. Interviewers should also encourage the person being interviewed to suggest additional topics for reminiscence.

Biographical Facts

1. Name
2. Date of Birth
3. Place of Birth
4. Names of Parents
5. Names of Brothers and Sisters
6. Name(s) of Spouse(s)
7. Names of Children
8. Names of Grandchildren

Childhood

1. Why did your parents give you the name they did?
2. Where did you grow up? What memories come to mind about this place or these places?
3. How would you describe each of your parents? What did they do for a living? What special memories do you have of your parents?
4. What special memories do you have about your brothers or sisters?
5. Who were your good friends growing up? What were they like? Are there any stories about your childhood friends you would like to tell?
6. What were your hobbies and interests when you were growing up?
7. What jobs and chores did you have growing up?
8. What were your favorite kinds of music when you were growing up?
9. Who were your favorite teachers in school? What memories do you have of them?
10. What do you have any funny family stories?
11. What historical events made the strongest impression on you when you were growing up?
12. Are there any other memories from your childhood that you would like to talk about?

Adulthood

1. Did you get married? If so, how did you meet your spouse? What special memories do you have about your wedding and your marriage to that person? [If the person being interviewed married more than once, repeat the question for each spouse]
2. Did you have children? If so, what can you tell me about them? What special memories do you have about your children when they were young? What are your children doing now?
3. Were you a member of the armed forces? What can you tell me about your time serving your country? Are there any especially memorable things that happened to you while you served as a member of the armed forces?
4. What friendships have been most important to you as an adult? What special memories do you have of your time with friends?
5. Do you have any grandchildren? What special memories do you have of your grandchildren?
6. What jobs have you had? Have you enjoyed these jobs? What special memories do you have of these jobs?
7. Has church been an important part of your life? If so, what special memories do you have of church and the people you have known through the church?
8. What are your hobbies and interests?
9. What are your favorite foods?
10. What are your favorite television and radio programs?
11. What are your favorite movies?
12. What are your favorite kinds of music?
13. What special memories do you have of trips you have made or vacations you have taken? What have been your favorite places to visit?
14. What historical events have made the strongest impression on you as an adult?
15. Are there any other favorite stories about your life that you would like to talk about?

Outlook on Life

1. Based on your experiences throughout your life, what advice would you give to a person growing up now?
2. Are there any pieces of wisdom that stand out the most to you as important for other people to think about?
3. As you look back on your life, what are your favorite memories?
4. What are the proudest moments of your life?
5. As you look back on your life, what have been the biggest challenges you have faced?
6. What are you most looking forward to in the future?

APPENDIX E

ASSESSMENT INTERVIEW

Oral Portion:

1. Have you enjoyed participating in the oral history activity?

2. What are some things about the interview that you enjoyed the most? What are some things about the interview that you enjoyed the least?

3. Was the length of the interview too short, too long, or just about right?

4. Do you like the products you received that were based on the interview? Are there any things you especially like about the products?

5. Are there any things you would recommend we do differently to make the interview better?

6. Are there any things you would recommend we do differently to make the products better?

Written Portion:

Instructions: For each of the following statements, please circle the response that best indicates to what extent you agree or disagree with each statement.

1. The interview process was enjoyable.

Strongly disagree *Disagree* *Neither agree nor disagree* *Agree* *Strongly agree*

2. I am pleased with the one-page biography that I received.

Strongly disagree *Disagree* *Neither agree nor disagree* *Agree* *Strongly agree*

3. I am pleased with the audio CD that I received.

Strongly disagree *Disagree* *Neither agree nor disagree* *Agree* *Strongly agree*

4. Other people would enjoy participating in this activity.

Strongly disagree *Disagree* *Neither agree nor disagree* *Agree* *Strongly agree*

5. I will share my biography with family and/or friends.

Strongly disagree *Disagree* *Neither agree nor disagree* *Agree* *Strongly agree*

6. I will share my audio CD with family and/or friends.

Strongly disagree *Disagree* *Neither agree nor disagree* *Agree* *Strongly agree*

7. Participation in the reminiscence activity itself was a worthwhile experience.

Strongly disagree *Disagree* *Neither agree nor disagree* *Agree* *Strongly agree*

8. Other people would benefit from participating in this activity.

Strongly disagree *Disagree* *Neither agree nor disagree* *Agree* *Strongly agree*